With current smoking patterns, about 500 million people alive today will eventually be killed by tobacco (1). Tobacco deaths will occur in men already smoking, children who will become smokers, and an increasing number of women smokers. For most of these deaths to be avoided, a substantial proportion of adult smokers will have to quit and children will need to avoid taking up the habit. If half of the adult smokers stopped over the next 20 years, about one third of the tobacco deaths in 2020 would be avoided and tobacco deaths in the second quarter of the century would be halved. Such changes would avoid about 20 or 30 million tobacco deaths in the first quarter of the century and about 140 million in the second quarter (see Figure 5.1).

How can the epidemic be fought? Effective tobacco control strategies already exist, and they have been proved to make a difference, benefiting both adults and children. Governments that have adopted them have succeeded in reducing, or at least slowing the increase in, tobacco use.

To build on those successes, four principles of tobacco control provide a road-map for national and global action. They include public health information combined with advertising bans, taxes and regulations, encouraging smoking cessation, and building tobacco control coalitions. They are described in detail later in this chapter.

This chapter also reviews the health and economic costs of tobacco, and identifies major obstacles that control programmes must overcome. It looks at what has and has not worked, and shows that the tools for control exist. The lack of global leadership has, however, resulted in the potential for worldwide control remaining unrealized. The final section of this chapter explains how WHO’s Tobacco Free Initiative (TFI) aims to fill the gap in leadership.

The Health and Economic Costs of Tobacco Use

Worldwide mortality from tobacco is likely to rise from about four million deaths a year in 1998 to about 10 million a year in 2030. To put it slightly differently, tobacco will cause about 150 million deaths in the first quarter of the century and 300 million in the second quarter. Half of these deaths will occur in the 35–69 years age group, including many in productive middle age, with an average loss of 20–25 years of life.

Tobacco use results in both health and economic costs that are large and growing. This section summarizes the evidence.
Health consequences of tobacco

Since about 1950, more than 70 000 scientific articles have left no scientific doubt that prolonged smoking is an important cause of premature mortality and disability worldwide. Estimates suggest that in developed countries, smoking will have caused about 62 million deaths between 1950 and 2000. WHO now estimates that smoking causes about four million deaths annually worldwide (see Table 5.1) and predicts that, with current smoking patterns, this number is likely to increase dramatically.

There is, of course, some uncertainty in such estimates, both because they involve extrapolation of present hazards to future hazards, and because they involve extrapolation from studies in Western Europe, North America and China to many other populations. At present many large countries lack direct evidence on their tobacco mortality; in addition, the long delay between smoking and its mortality effects has confused governments and individuals. For example, while studies in the 1960s suggested that one in four long-term smokers died from their habit, studies in the 1990s suggest that the real ratio is now about one in two. In addition, those smokers dying between ages 35 and 69 lose about 20–25 years of life versus non-smoker life expectancy, and those dying over age 70 lose about 8 years of life.

The nature of the smoking epidemic also varies from country to country. In developed countries, cardiovascular disease, in particular ischaemic heart disease, is the most common smoking-related cause of death. In populations where cigarette smoking has been common for several decades, about 90% of lung cancer, 15–20% of other cancers, 75% of chronic bronchitis and emphysema, and 25% of deaths from cardiovascular disease at ages 35–69 years are attributable to tobacco. Tobacco-related cancer constitutes 16% of the total annual incidence of cancer cases – and 30% of cancer deaths – in developed countries, while the corresponding figure in developing countries is 10% (2). By contrast, in China, which has the world’s highest number of tobacco deaths, smoking now causes far more deaths from chronic respiratory diseases than it does from cardiovascular disease. In addition, smoking causes about 12% of all tuberculosis deaths. Men in urban China smoking more than 20 cigarettes a day have double the death rate from TB of non-smokers. This could be because a lung damaged by tobacco may offer a propitious environment for the infectious tuberculosis bacillus.

Exposure to other people’s smoking is associated with a somewhat higher risk of lung cancer, and with several other important health ailments in children such as sudden infant death syndrome, low birth weight, intrauterine growth retardation and children’s respiratory disease. In addition, smoking is the leading cause of domestic fires in the United States, Canada and other high-income countries, entailing billions of dollars of property loss annually.

Current deaths from tobacco relate to past consumption, mainly among males in developed countries and in

---

**Figure 5.1 Premature deaths from tobacco use, projections for 2000–2024 and 2025–2049**

![Figure 5.1](image-url)

China. In the near future, the epidemic will expand to include more developing countries and a larger number of women. Lung cancer is now the most common cause of death from cancer in women in the United States and its incidence in women is rising briskly in countries where female smoking is long established (3).

The scale of the approaching epidemic can be gauged from the estimate that there are about 1.15 billion smokers in the world today, consuming an average of 14 cigarettes each per day (4). Of these smokers, 82% live in low and middle income countries – a result, in part, of inadequate tobacco controls.

Tobacco consumption fell between 1981 and 1991 in most high income countries (see Figure 5.2). In the United States, the prevalence of smoking increased steadily from the 1930s and reached a peak in 1964 when more than 40% of all adult Americans, including 60% of men, smoked. Since then smoking prevalence has decreased, falling to 23% by 1997. By contrast, consumption is increasing in developing countries by about 3.4% per annum, having risen dramatically in some countries in recent years. Overall, smoking prevalence among men in developing countries is about 48%.

Thus, on current smoking patterns, by the third decade of the next century, smoking is expected to kill 10 million people annually worldwide – more than the total of deaths from malaria, maternal and major childhood conditions, and tuberculosis combined (5). Over 70% of these deaths will be in the developing world. By 2020, smoking will cause about one in three of all adult deaths, up from one in six adult deaths in 1990 (6).

### Table 5.1 Tobacco: cigarette consumption, mortality and disease burden by WHO Region

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>Cigarette consumption per capita&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Mortality (000)</th>
<th>DALYs (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>480</td>
<td>125</td>
<td>1 900</td>
</tr>
<tr>
<td>The Americas</td>
<td>1 530</td>
<td>772</td>
<td>8 867</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>890</td>
<td>182</td>
<td>2 976</td>
</tr>
<tr>
<td>Europe</td>
<td>2 080</td>
<td>1 273</td>
<td>17 084</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>415</td>
<td>580</td>
<td>7 439</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>1 945</td>
<td>1 093</td>
<td>11 022</td>
</tr>
<tr>
<td>World total</td>
<td>1 325</td>
<td>4 023</td>
<td>49 288</td>
</tr>
</tbody>
</table>

<sup>a</sup> These figures exclude other tobacco products and may significantly underestimate tobacco consumption. Because of a change in methodology, comparison with previous WHO estimates should be avoided. Based on data from the UN Department for Economic and Social Information and Policy Analysis, Industrial Statistics Section and the UN Comtrade database.

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**Figure 5.2 Trends in per capita cigarette consumption, 1971, 1981 and 1991**

- Data for China are also included in low and middle income countries.
The economic costs

Tobacco obviously provides economic benefits to producers. Similarly, the fact that users are willing to pay for tobacco products means that they clearly derive measurable benefits from them. However, economic analyses conclude that even with highly conservative assumptions, the economic costs of tobacco exceed its estimated benefits (see Box 5.1).

One analysis by Barnum (7) tried to estimate the additional costs – in mortality, morbidity and health care – and the benefits – to consumers and producers – per year if global tobacco production were to increase by 1000 metric tons. The analysis concluded that there would be net economic losses of 13.6 million dollars per year, and said: “Tobacco is a poor investment if the objective is to enhance the future welfare of the globe”. In fact there has been a 26% increase in production between 1994 and 1997 – equal to almost 2.1 million metric tons, giving a total of just over 8 million metric tons.

The effect of tobacco-related mortality on economic growth can be estimated from the statistical models of the determinants of economic growth discussed in Chapter 1.

Box 5.1 The economics of tobacco control

While health policy-makers accept that smoking should be controlled, there is still widespread debate and uncertainty within governments about the economic consequences of such action. Many policy-makers fear that raising taxes on cigarettes would cut government revenues; that sharply reduced demand for tobacco would mean catastrophic job losses for economies; or that health systems would have to spend more if there were fewer smokers because smokers die young, sparing societies the cost of caring for them in their old age.

The World Bank’s study team of economists has examined each of these issues and concludes that the policy-makers’ fears are largely unfounded. On the contrary, there are strong grounds for intervening, with minimal costs. For example, even a modest tax increase of 10% would prevent 7 million deaths, counteracting the costs of caring for them in their old age.

The World Bank’s study team examined each of these issues and concludes that the policy-makers’ fears are largely unfounded. On the contrary, there are strong grounds for intervening, with minimal costs. For example, even a modest tax increase of 10% would prevent 7 million deaths, including those of people in productive middle age, in low income countries.

The team has produced a report (8) whose key recommendations are to increase taxes on manufactured tobacco worldwide, to support specific information so that the addictive nature of nicotine and the damage caused by tobacco are understood by consumers and governments, and to deregulate nicotine replacement therapies.

Since 1991 the World Bank has had a formal policy of not lending for tobacco production and of encouraging tobacco control. The Bank works in close partnership with WHO. The following key messages on the economics of tobacco control provide answers to commonly asked questions.

- Do not individuals “freely” choose to consume tobacco? Many know the risks. Why, then, should governments discourage smoking?

Most smokers start when they are children or adolescents — when they have incomplete information about the risks of tobacco and its addictive nature. By the time they try to stop many are addicted. Governments can adopt policies to correct these information and addiction problems. Furthermore, governments are right to restrict smokers from exposing other people to the risks and nuisance of passive smoking.

- Do the economic costs of tobacco control – for example, unemployment on tobacco farms — substantially outweigh potential health benefits?

No. There may well be temporary income loss among producers and distributors of tobacco. Successful control policies will lead to only a slow decline in global tobacco use (which is projected to stay high for several decades). The resulting need for downsizing will be far less dramatic than many other industries have had to face. Furthermore, money not spent on tobacco will be spent on other goods, generating alternative employment. Economists have concluded that the economic benefits of tobacco control far exceed the costs.

- If tobacco addiction is so strong, why would raising taxes produce any health benefits?

The vast majority of numerous studies have shown that increased taxes lead to fewer smokers and fewer deaths. Price increases deter adolescents more than adults, so they may not become addicted at all. People in developing countries are more price responsive than in high income countries.

- Won’t governments lose revenues if they increase cigarette taxes, because people will buy fewer cigarettes? Raising tobacco taxes will be thwarted by smuggling and illicit production — so, again, why raise taxes?

Calculations show that very substantial cigarette tax increases will still reduce consumption and increase tax revenues, even in the face of smuggling. The magnitude of smuggling is linked to organized crime, and has also been linked in a number of recent cases to the activities of the tobacco industry itself. Governments can adopt effective policies to control it, such as stopping street sales, and by using warning labels and prominent tax stamps.

- In many countries, poor people smoke more than do the affluent. Are cigarette taxes increases regressive, that is, they hurt the poor?

While smoking levels increase with income early in a country’s tobacco epidemic, with time the poor and uneducated smoke more than do the affluent. Moreover, the study finds that smoking explains much of the gap in middle-age mortality between rich and poor groups. Cigarette tax increases, even so, need not be regressive. In some cases tax increases have reduced consumption by the poor so much that their smoking expenditures actually declined. More importantly, health benefits from cigarette taxes are highly progressive: greater reductions in tobacco use by poor people and minority groups in response to price increases improve their health.

OBSTACLES TO TOBACCO CONTROL

Evidence about the addictive nature of nicotine, and other ill-effects of smoking, needs to be disseminated more widely. The tobacco industry is reluctantly surrendering its secrets.

LACK OF INFORMATION ON RISKS

Like consumers of other goods, tobacco consumers need information about what they are buying. Tobacco, however, differs from most consumer goods in that it has harmful health consequences and is addictive. Therefore its consumers have to weigh up an additional type of information in making their decision to buy. The extent to which smokers know about the health consequences and addictive nature of their purchase is critical in determining what they believe they are buying.

Consumers can learn about the health effects of tobacco in several ways. One is through published scientific and epidemiological research which may be summarized in the media. They may also learn through warning labels directly attached to cigarette packs. A third way is through public information campaigns, or counter-advertising; a fourth is through educational initiatives, such as school and community programmes. All of these have been shown to be effective to varying degrees; further research is required on educational initiatives in high income countries in reducing demand for tobacco. A Surgeon General’s report in the United States and a Royal College of Physicians report in the United Kingdom, both published in the 1960s, have been responsible for halting much of the increases in consumption in those countries. The implication is that a greater increase in the availability of health information in developing countries would be expected to lead to a significant decrease in global tobacco consumption.

All countries need to increase and improve local studies on tobacco-attributable mortality. Established vital registration systems, some of them over 100 years old, can be used in some rich countries to assess disease patterns and trends. Decades of epidemiological research have identified some of the particular causes of such trends, particularly tobacco use. This is not yet so in poorer countries.

Unfortunately, country-specific information on tobacco-related disease is weakest precisely in the countries where the epidemic looms largest. Recently, WHO collaborating centres and Chinese scientists have helped to develop an innovative model where simply asking about smoking on death certificates provides a low-cost and reliable method of monitoring the tobacco epidemic. Similar methods could be used to monitor the hazards of tobacco in many other populations. For example, in South Africa smoking status is routinely reported on the new type of death certificate, perhaps obviating the need to interview family members.

TOBACCO USE IS AN ADDICTION

As many millions of smokers have belatedly discovered – and lack of information is partly to blame – nicotine is addictive. Some addiction experts have rated tobacco as worse than heroin or cocaine in producing dependency. The 1988 report of the United States Surgeon General, subtitled Nicotine addiction, concluded that: “The pharmacological and behavioural processes that determine tobacco addiction are similar to those that determine addiction to drugs such as heroin and cocaine” (8).

Tobacco satisfies the criteria for “dependence” in the tenth revision of the International Classification of Diseases (9). Classification F17 is entitled Mental and behavioural disorders due to use of tobacco. Sub-classification F17.2, Dependence syndrome, offers a description that
will be familiar to most smokers: a cluster of behavioural, cognitive and physiological phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state.

Research suggests that the process by which people decide about tobacco usage involves a “tobacco addiction cycle”. This consists of the stages a person goes through when he or she changes from being a “non-smoker” into a “new smoker”, then becomes a “committed smoker”, then typically a “smoker trying to stop” and, for a fortunate minority, a “reformed smoker” who, alas, is liable to start the cycle all over again (6).

Many people consume tobacco primarily to obtain nicotine, which is found in all tobacco products. Cigarettes are highly refined vehicles designed to give rapid peak nicotine levels. In the words of the tobacco industry, “Think of the cigarette as a dispenser for a dose unit of nicotine” (10). The nicotine is quickly absorbed via the lungs of smokers and reaches the brain within seconds. It is the primary active ingredient in tobacco that reinforces the biomedical and behavioural process of individual smoking habits. Social and psychological influences are also important in the initiation of smoking, but the addictive nature of nicotine is the main reason why many smokers maintain their tobacco use (8), leading to tobacco-related ill-health, disability and premature death.

Nicotine addiction is not simply a matter of choice or taste. It is not irreversibly addictive, as many people can quit smoking. This explains much of the decline in smoking among adults in OECD countries. But some people find quitting virtually impossible. Even smokers who quit often have to make several attempts before dropping the habit; and former smokers remain vulnerable to resuming smoking at times of stress.

Nicotine addiction takes hold almost exclusively in children and youth (see Figure 5.3). About half to three-quarters of teenagers in OECD countries try smoking, and about half of those quit quickly. The rest become life-long smokers, among whom one in two will die from smoking. The joint probability of trying smoking, becoming addicted and dying prematurely is higher than for any other addiction (such as alcohol, for which the likelihood of addiction is much lower). Also, children taking up smoking are more likely to experiment with other drugs than those who do not.

Nicotine addiction creates an incentive for the tobacco industry to subsidize or give away free cigarettes to potential smokers, especially young people, in order to induce them to smoke, and otherwise to keep prices high to maximize profits. The same incentive applies to creating addiction among adults in developing countries by manipulating price.

**Tobacco dealers make enormous profits**

Tobacco is big business (see Table 5.2). This year, twice as many cigarettes will be smoked as were lit 30 years ago. The tobacco industry is expanding, with the world retail market in cigarettes now worth some US$ 300 billion. Tobacco companies continue to make huge profits, estimated at more than $20 billion a year.
The tobacco industry exerts its influence in countries in several ways: politically as a result of large profits, through denial of tobacco’s health impacts, and by advertising and promoting cigarettes. The cigarette market is rapidly expanding among developing countries. Globally, about 6000 billion cigarettes are consumed each year, up from 3000 billion in 1970, despite the fall in countries such as Australia, Canada, Japan, New Zealand, the UK, the USA, and most northern European countries (11). For example, total cigarette consumption in the United Kingdom has fallen from 138 billion to 80 billion per year over the last two decades.

Developing countries are an ideal target for market expansion. In the past few decades, transnational tobacco conglomerates have made tremendous inroads into the markets of poor and middle income nations in Africa, Asia, Eastern Europe and Latin America. Manufacturers have benefited from the globalization of trade, creating big increases in domestic tobacco consumption and imports of tobacco products in many low and middle income nations. In many countries, tobacco companies support social services, in an attempt to portray themselves as purveying “just another product”.

Like other industries, the tobacco industry has no financial incentive to provide health information that would reduce consumption of its products. On the contrary, the industry has consistently hidden product information on the ill effects of smoking, used the power of its advertising dollars to dissuade lay journals from reporting on smoking’s health effects, and resorted to other methods to decrease information available to smokers. Internal industry documents uncovered in recent American lawsuits confirm such practices (12). Furthermore, the industry has played an active role in funding and disseminating research that casts doubt on the links between tobacco and death. The impact of such information on overall consumer knowledge is difficult to assess. But it is likely to have impeded individual assessments of the true risks of smoking, and it has slowed the spread of government-initiated anti-smoking information campaigns.

Advertising is a crucial component of the industry’s expansion. It is the primary method of competition within a highly concentrated industry which has a small number of rela-

Table 5.2 The ten largest tobacco companies, 1997

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company Name</th>
<th>Cigarettes production (billions)</th>
<th>Cigarette production (% of total)</th>
<th>Tobacco sales (US$ millions)</th>
<th>Leading brand names</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>China National Tobacco Corporation (China)</td>
<td>1 700</td>
<td>24.6</td>
<td>...</td>
<td>Zhong Hua, Hong Ta Shan</td>
</tr>
<tr>
<td>2.</td>
<td>Philip Morris (United States of America)</td>
<td>947</td>
<td>13.7</td>
<td>23 895</td>
<td>Marlboro, Virginia Slims</td>
</tr>
<tr>
<td>3.</td>
<td>BAT – British American Tobacco (United Kingdom)</td>
<td>712</td>
<td>10.3</td>
<td>11 845</td>
<td>Derby</td>
</tr>
<tr>
<td>4.</td>
<td>R.J. Reynolds (United States of America)</td>
<td>316</td>
<td>4.6</td>
<td>8 325</td>
<td>Winston, Camel</td>
</tr>
<tr>
<td>5.</td>
<td>Japan Tobacco (Japan)</td>
<td>288</td>
<td>4.2</td>
<td>23 445</td>
<td>Mild Seven</td>
</tr>
<tr>
<td>6.</td>
<td>Rothmans International (South Africa)</td>
<td>187</td>
<td>2.7</td>
<td>5 500</td>
<td>Rothmans</td>
</tr>
<tr>
<td>7.</td>
<td>Reemtsma (Germany)</td>
<td>119</td>
<td>1.7</td>
<td>2 330</td>
<td>West</td>
</tr>
<tr>
<td>8.</td>
<td>KT&amp;G – Korea Tobacco and Ginseng Corporation (Republic of Korea)</td>
<td>94</td>
<td>1.4</td>
<td>...</td>
<td>This</td>
</tr>
<tr>
<td>9.</td>
<td>Tekel (Turkey)</td>
<td>75</td>
<td>1.1</td>
<td>1 550</td>
<td>Maltepe</td>
</tr>
<tr>
<td>10.</td>
<td>Seita (France)</td>
<td>55</td>
<td>0.8</td>
<td>3 125</td>
<td>Gauloises</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>2 407</td>
<td>34.9</td>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>

*Merged in 1999.
...Data not available.
tively large firms. These firms tend not to compete by price, but try to increase sales with advertising. The largest international tobacco companies are Philip Morris and BAT (see Table 5.2). *Advertising age* reports that in 1996, for advertising outside of the USA, Philip Morris was the ninth largest advertiser in the world and BAT was the 44th largest. In addition, an *Advertising age* survey of Asia, Europe and the Middle East finds that tobacco companies are listed in the top ten advertisers in 21 out of 50 countries.

Huge increases in cigarette advertising and a 10% increase in total tobacco use occurred in four Asian countries when US cigarette companies entered those markets (13). Increases in consumption come both from new consumers and from increased tobacco use by existing consumers. In the case of cigarettes, new consumers are often uninformed adolescents.

**PRINCIPLES OF CONTROL**

Effective tobacco control policies and interventions can make a real difference to tobacco prevalence and consumption, and hence to associated health outcomes. Most of the documented successes have occurred in industrialized countries, but some developing countries have recently introduced effective measures. Protection of children, protection of non-smokers, informing adult smokers in order to encourage cessation, and improving equity are key objectives. All are served by interventions to reduce the demand for and supply of tobacco products, but to differing degrees. Table 5.3 shows the instruments of tobacco control policies ranked by priority to achieve their goals.

One major cross-national study has analysed the individual and combined effects of a range of policies and interventions on future prevalence (14). Their relevance to countries in varying stages of economic development is summarized in Table 5.4. Price increases (through excise taxes on tobacco products) constitute by far the most important policy tool available. The other interventions have demonstrated effectiveness when properly enacted and enforced. The study highlights the need for policy-makers to use the best mix of policies. These measures are relatively inexpensive, and can more than finance themselves through tobacco taxes. Each can be recommended for inclusion in a typical national tobacco control strategy.

Which combination works best will depend on the particular country and the particular time, although significant taxation levels are likely to figure prominently in most contexts.

**CREATING A “FAIR INFORMATION” ENVIRONMENT**

This can be achieved by conveying accurate, evidence-based public health information on the risks of tobacco. It also entails a complete, worldwide ban of all tobacco advertising.

<table>
<thead>
<tr>
<th>Table 5.3 Goals and principles of tobacco control policies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principles</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1. Ban advertising and expand public health information</td>
</tr>
<tr>
<td>2. Use taxes and regulations to reduce consumption</td>
</tr>
<tr>
<td>3. Encourage cessation of tobacco use</td>
</tr>
<tr>
<td>4. Build anti-tobacco coalitions</td>
</tr>
</tbody>
</table>

**** high priority  ★★ medium priority  ★ low priority
and promotion that convey biased messages and seductive images. Further, it requires full
disclosure by the tobacco industry about their practices that affect public policy.

Mass public information and media campaigns involve both mass counter-advertising
efforts and large and serious warning labels on tobacco products. Recent evidence from
counter-advertising campaigns that are financed by earmarked cigarette taxes (15) have
shown reductions in smoking. Strong and varied health warnings written in local lan-
guages, as have been used in Canada and South Africa, are also needed.

Research on the causes, consequences and costs of tobacco use has contributed to a
social climate where effective tobacco control can occur. Priority research is required in the
world’s major regions to support action on tobacco control, as there is a lack of such infor-
mation in most low and middle income countries, and governments and health officials
may dismiss evidence that is not local or regional.

**USING TAXES AND REGULATIONS TO REDUCE CONSUMPTION**

Higher tobacco prices result in lower consumption among all age groups, but the young
and poor are most affected. Regulations that forbid advertising, promotional distribution,
vending machine sales, smoking in public places and under-age smoking complement
taxes in reducing consumption. Partial restrictions on advertising may be ineffective – lead-
ing to promotion through other media. There is substantial evidence that advertising and
promotion target children, who are least informed about the risks of tobacco use.

Regular and sustained tax increases – in many cases to a multiple of current levels –
would be the most effective tool of any type to control tobacco use. Tax increases reduce
smoking among youth more than among adults, and also help to narrow the behavioural
gaps between the poor and rich in smoking (16). Contrary to many claims by the tobacco
industry, increasing tax rates reduces consumption and, in the short to medium term, in-
creases government revenue.

China is perhaps the best recent example of the potential health and revenue benefit of
appropriate taxation. In China, tobacco taxation has been a major source of revenue for
many years. A recent World Bank report on financing health services suggested that a 10%
additional tax on tobacco could cut consumption by 5% while generating an additional

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**Table 5.4 Principles to guide tobacco control policies in different countries**

<table>
<thead>
<tr>
<th>Principles</th>
<th>Low income countries</th>
<th>Countries in transition</th>
<th>Middle income countries</th>
<th>High income countries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principle 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bans on advertising and promotion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public health information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Principle 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased taxation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulation to reduce public and workplace smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Principle 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deregulation of nicotine-replacement products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Principle 4</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anti-tobacco coalitions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Symbols
- ■■■ highly relevant
- ■■ relevant
- ■ somewhat relevant
4.5% increase in revenue. This extra revenue would cover more than a third of the incremental funds needed for provision of basic health services for China’s poorest 100 million inhabitants (17).

**ENCOURAGING CESSATION OF TOBACCO USE**

This can be achieved in part by encouraging markets for less harmful and less expensive ways of delivering nicotine. Although nicotine is the addictive substance in tobacco, it causes relatively little harm itself. For many current smokers, continued use of nicotine – through patches, tablets, inhalers or other means – offers the best practical approach to cessation.

Under new proposals announced by the UK government in December 1998, £60 million was being made available to set up a comprehensive service within the NHS to help people stop smoking. Proposals included providing a week’s supply of nicotine patches free to smokers on low incomes. Deregulation of nicotine replacement products should permit governments to improve the success of tobacco control. Such products are increasingly available in Western countries, but they are much less available in low and middle income countries.

**BUILDING TOBACCO CONTROL COALITIONS, DEFUSING OPPOSITION TO CONTROL MEASURES**

Public revenues, especially those from tobacco taxes, can fund groups and activities that will advance the movement towards control. They can also selectively fund the short-run transition to other employment for individuals, such as tobacco farmers, whose livelihoods might be affected by reduced consumption. Governments can help to mobilize civil society and other groups by funding the equivalent of a “tobacco or health” unit. Several models for such units exist. They are usually independent of governments, but may have discretion over public finances used to decrease consumption. Such units have existed in Australia and the United States (California and Massachusetts), and have been financed by tobacco taxes. The benefits of earmarking are to help concentrate potential “winners” such as other health groups, behind tobacco control.

For example, the Victoria Health Promotion Foundation (VicHealth) in Australia was established in 1987 and funded until 1997 through a small percentage tax on tobacco products. It sponsors sports and arts events that the tobacco industry has traditionally found attractive. Now, instead of these events being used to recruit smokers, VicHealth promotes the benefits of not smoking and of adopting a healthy lifestyle. It also supports other health promotion programmes in areas such as injury prevention, healthy eating and physical activity. The gains for the community are considerable, and the lives of millions of Victorians have been enriched and enlivened by participating in VicHealth funded programmes.

Tobacco control coalitions have gained invaluable ammunition by taking the industry to court and forcing the disclosure of its documents. In the United States in 1998, the State of Minnesota and medical insurance groups successfully sued the industry for consumer fraud, winning not just US$ 7 billion, but the disclosure of almost four million of the industry’s internal documents, totalling about 35 million pages, dating back to the 1950s. The documents, now stored in a depository in Minneapolis, Minnesota and open to public inspection, relate to the medical evidence on smoking, the addictiveness of nicotine, and marketing strategies, among other subjects. This information may have a huge impact on tobacco litigation and campaigns for comprehensive tobacco control measures in other countries. Other States, such as South Carolina, have similarly obtained previously hidden documents.
Combating the Tobacco Epidemic

TOBACCO CONTROL: WHAT SOME COUNTRIES HAVE ACHIEVED

The chief goal of tobacco control policies is to reduce damage to societies from smoking. Such policies offer enormous health benefits, and have been successful in many developed countries. A World Bank report (see Box 5.1) suggests that with a worldwide price increase in cigarettes of only 10%, 40 million people will quit smoking (representing 3% of all smokers in 1995) and eventually almost 20 million deaths attributable to smoking will be averted. Such an increase would also result in a decrease in consumption of 384 billion cigarettes per year (6). Some countries have already shown the way, and their achievements can be models for others (see Box 5.2).

Thailand has adopted a comprehensive control programme. Smoking in cinemas and buses was banned in Bangkok in the 1970s. National advertising bans and other anti-smoking measures followed and in 1993 the government raised cigarette tax on health grounds. In 1997, it became the first country after Canada to require tobacco companies to reveal the ingredients of their cigarettes. Overall smoking prevalence has dropped by 4% among males and by almost 3% among 15–19-year-olds.

The United Kingdom has reduced smoking substantially, through both price and non-price measures. From 1965 to 1995 annual UK cigarette sales fell from 150 billion to 80 billion. In the USA, recognition of the addictive nature of nicotine led the Food and Drug Administration to acquire jurisdiction over cigarettes. This move needs to be replicated in other countries, as deciding who controls the delivery of nicotine and how it is regulated will determine the number of deaths caused by tobacco in the future.

Most smokers concede that public places should be smoke-free, and most of them wish to stop smoking. Cessation advice and interventions are highly cost-effective. The cost per life year gained is below US$3000 in Western European countries for counselling for smoking cessation, with or without nicotine replacement therapy, compared with $23 000 for blood pressure screening of 40-year-old men and a median cost of $30 000 for over 300 standard medical interventions. There is no doubt that effective, coordinated action has an impact. In France, cigarette consumption has declined considerably since the Evin law of 1991 banned tobacco advertising, restricted smoking in public places and introduced price increases.

### Box 5.2 Towards a tobacco-free Europe

Over 30% of adults in the European Region are regular daily smokers. It is estimated that one in five of all 35-year-old men in the eastern part of the Region will die from the effects of smoking before they reach the age of 70. This is twice as high as in western Europe. Non-smokers are at risk, too, of disease resulting from breathing other people’s smoke. Smoking is currently on the increase, predominantly in the central and eastern countries of the Region, and women and children are particularly targeted by the tobacco industries. The behaviour of some adolescent smokers is shown in the table.

There are no economic benefits from tobacco, as global costs outweigh the profits. A proportion of tobacco taxes is sufficient to fund all tobacco control activities, including support to sports and artistic events that were sponsored by the tobacco industry until the European Parliament decided in July 1998 to ban advertising and sponsorship by tobacco companies.

Because of the time lag between smoking and death from smoking-related causes, the main determinant of the level of tobacco-related deaths over the next 35 years in the European Region will be the number of the existing 180 million smokers who can successfully quit the habit or at least significantly reduce their consumption. In the USA, recognition of the addictive nature of nicotine led the Food and Drug Administration to acquire jurisdiction over cigarettes. This move needs to be replicated in other countries, as deciding who controls the delivery of nicotine and how it is regulated will determine the number of deaths caused by tobacco in the future.

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<table>
<thead>
<tr>
<th>Percentage of 15-year-old boys and girls smoking at least once a week, selected European countries, 1989–1990 and 1993–1994</th>
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<tbody>
<tr>
<td>Austria</td>
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<td>Finland</td>
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<td>France (Nancy and Toulouse)</td>
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<td>Hungary</td>
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<td>Poland</td>
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... Data not available.

billion. Annual UK tobacco deaths in the 35–69 year age group decreased from 80,000 to 40,000. In December 1998, the UK government announced a major campaign to help 1.5 million people to stop smoking by the year 2010; it said taxes on tobacco products would continue to be increased. The government’s targets by the year 2010 include reducing smoking among children in England from 13% to 9%, reducing adult smoking from 28% to 24% or less, and reducing the number of women who smoke during pregnancy from 23% to 15%.

The European Union has a multi-pronged approach to tobacco control. An EU Directive on tobacco advertising became law in June 1998. All EU Member States are now required to introduce legislation to implement the directive, which calls for bans on direct and indirect sponsorship leading to a complete ban by 1 October 2006. This means that there should be a ban on advertising and promotion, except in print media, within 3 years; a ban on advertising in print media within 4 years; a ban on tobacco sponsorship of all events not organized at the world level within 5 years; and, no later than 1 October 2006, a ban on sponsorship of events organized at the world level (for example, Formula 1 motor racing) on a case by case basis, subject to voluntary worldwide controls and declining tobacco funding. Member States of the EU may introduce tougher or additional measures and more rapid implementation timetables than required by the directive.

France has had a comprehensive tobacco control law fully in force since 1993. The law bans tobacco advertising and requires strong health warnings on both the front and the back of the package. It also controls smoking in transport, public places and workplaces by either banning it altogether or limiting it to just a few smoking areas. Between 1991, when the law was adopted, and 1995, tobacco consumption, measured in weight of tobacco products sold, had fallen by 7.3%.

The United States had health education campaigns combined with smoke-free policies between 1965 and 1985 that resulted in 40 million people not starting to smoke, or giving up the habit. There were about 50 million smokers in the United States in 1985, but there would have been 90 million without the measures that were introduced. The difference represents many hundreds of thousands of lives saved.

Among Latin American countries, advertising controls apply in Chile, Colombia, Costa Rica, Mexico and Panama. Smoking is banned in domestic and international flights throughout the Americas. National tobacco control plans have been drafted in Brazil and Mexico.

Norway enforced a total ban on all tobacco advertising in 1975, imposed health warnings and prohibited the sales of cigarettes to minors. The legislation had a huge impact on tobacco sales, especially among young teenagers. It is estimated that if consumption in general had continued rising it would be about 80% higher than it actually is.

WHO’s Tobacco Free Initiative

The deadly impact of tobacco on health now and in the future is the primary reason for WHO’s strong explicit support to tobacco control on a worldwide basis. WHO established the Tobacco Free Initiative in July 1998 to coordinate an improved global strategic response.

The long-term mission of global tobacco control is to reduce smoking prevalence and tobacco consumption in all countries and among all groups, and thereby reduce the burden of disease caused by tobacco.

In support of this mission, the goals of the Tobacco Free Initiative are to:
- galvanize global support for evidence-based tobacco control policies and actions;
- build new partnerships for action and strengthen existing ones;
• emphasis on cessation. This event and related activities are aimed at building awareness of
tobacco control policy are shown in Table 5.4.

In a broad policy framework, the mix will vary according to each country's political, social,
cultural and economic reality. Actions that could be included in a comprehensive national
control. It is important to consider the best mix of specific interventions required.

To achieve these goals, the Tobacco Free Initiative will build strong external partnerships
with a range of organizations and institutions around the world and internally through-
out WHO headquarters and its regional and country offices (see Box 5.3). Success will be
measured in terms of actions at local, country and global levels that achieve better tobacco
control.

The Tobacco Free Initiative will take a global leadership role in promoting effective poli-
cies and interventions that make a real difference to tobacco prevalence and associated
health outcomes. Evidence shows that countries which undertake concerted and compre-
prehensive actions to address tobacco control can bring about significant reductions in to-
acco-related harm. It is important to consider the best mix of specific interventions required.

The Tobacco Free Initiative will launch WHO’s “World No-Tobacco Day” in 1999 (an
annual event celebrated on 31 May) with the slogan “Leaving the pack behind”, putting the
emphasis on cessation. This event and related activities are aimed at building awareness of

### Box 5.3 Activities of the Tobacco Free Initiative

The Tobacco Free Initiative is building on WHO’s collaboration with the following partners in order
to extend opportunities for tobacco control.

- **UNICEF**: to prevent children and adolescents from starting to smoke.
- **World Bank**: to use excise taxes effectively; to dispel myths about financial benefits.
- **US Centers for Disease Control and Prevention (CDC)**; to support global surveillance of tobacco use
  and its consequences.
- **Environmental Protection Agency (EPA)**: to reach environmental constituencies.
- **US National Institutes of Health (NIH); International Development and Research Centre (IDRC),
  Canada; Swedish International Development Authority (SIDA)**; to expand the evidence base
  through policy research.
- **International nongovernmental organizations**: to strengthen action at grass-roots level; to promote
  networking through the Internet.
- **Private sector**: to channel energy and expertise from pharmaceutical, media and entertainment industries
  into tobacco control activities.
- **Academic centres**: to build capacity in several disciplines; to stimulate research for action.

The Tobacco Free Initiative is developing a Framework Convention on Tobacco Control, which was initiated
by WHO’s Member States at the World Health Assembly in May 1996. The aim is for Member States to adopt the
convention and key protocol agreements at the Health Assembly no later than May 2003. In May 1999, they will
consider the next steps to be taken in the negotiation process.

The WHO Framework Convention on Tobacco Control represents the first time that the Organization has
exercised its constitutional mandate under Article 19 to encourage nations to develop a convention. If a convention is
adopted and enters into force, it will be the first time that a convention approach has been specifically applied to
address a global public health problem.

WHO will build consensus, mobilize support, and encourage adoption of the WHO Framework Convention and
related protocols. The analytical work will focus on global and national law, trade issues, political mapping, and in-
dustry analysis and monitoring. A two-year cycle of continuous and enhanced international legal support, involving
experts from industrialized and developing countries as well as international lawyers with extensive experience
with the negotiation of international treaties, has been initiated.

A technical consultation of public health experts was held in Canada in December 1998. This meeting pro-
vided recommendations regarding the role of the Organization in promoting the WHO Framework Convention;
possible elements of the Convention; special support to developing countries; and means of advancing adoption
of the Convention. To ensure the active participation of developing countries in the negotiation of the
WHO Framework Convention, another technical consultation will be held in India in 1999. This meeting
will involve participants from various government ministries, nongovern-
mental organizations, and other interna-
tional organizations and will
focus on developing country issues
that should be addressed in formu-
laing and implementing the Con-
vention. It is expected that this
meeting will provide a foundation
for country-specific consultations,
with a view to establishing “model”
national committees to support the
convention process.

The role of the WHO Secretariat in
the treaty-making process is to pro-
vide technical support and guidance
to Member States in the pre-nego-
tiation and negotiation phases.
The health hazards of smoking and fostering behaviour change supportive of cessation among the general public, health professionals and United Nations agency staff. It will involve partnerships with nongovernmental organizations and the private sector, including the pharmaceutical industry.

In 1996, WHO’s Member States initiated the development of a Framework Convention on Tobacco Control. A framework convention is a form of treaty which is an international instrument between States, or between States and international organizations, governed by international law. The approach being proposed consists of two parts: a framework convention that calls for cooperation in achieving broadly stated goals and establishes the general norms and institutions of a multilateral legal structure; and protocols which elaborate additional or more specific commitments and institutional arrangements designed to implement these goals. The groundwork has been completed and the process of developing and negotiating the framework convention has been accelerated (see Box 5.3). The objectives are to establish an intergovernmental negotiating committee by 2000, and the adoption of the convention and key protocol agreements by 2003.

Although the drafting and negotiation of conventions is a prerogative of States, experience has demonstrated that international and nongovernmental organizations can actively facilitate the treaty-making process. Backed by the prominence of an internationally accepted legal instrument, global action can move ahead more effectively. By employing the policies and measures described in this chapter, governments are better-equipped than ever before to combat the tobacco epidemic and reduce its appalling toll.
REFERENCES